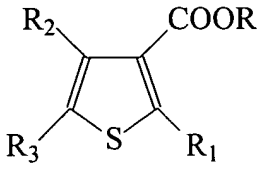
AMENDMENTS TO THE CLAIMS

1. (currently amended) A solid catalyst component for the polymerization of olefins comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



(I)

wherein R is a branched alkyl group, R_1, R_2 and R_3, same or different, are hydrogen, halogen, R^4, OR^4, $COOR^4$, SR^4, NR^4_2 ~~and~~or PR^4_2, wherein R^4 is a linear or branched C_1-C_{20} alkyl, C_2-C_{20} alkenyl, C_3-C_{20} cycloalkyl, C_6-C_{20} aryl, C_7-C_{20} alkylaryl or C_7-C_{20} arylalkyl group, optionally containing ~~one or more heteroatoms~~at least one heteroatom, and ~~two or more~~at least two of said R_1-R_3 groups can also be joined to form a cycle, with the ~~provisions~~proviso that at least one of R_1 and R_2 is $COOR^4$ and that when R_2 is COO-i-octyl and R is i-octyl, at least one of R_1 ~~and/or~~and R_3 are different from hydrogen.

2. (currently amended) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R is a primary branched alkyl having from 4 to 15 carbon atoms.

3. (currently amended) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R_2 is a COOR group.

4. (currently amended) The catalyst ~~components~~component according to claim 3 in which at least one of R_1 ~~and/or~~and R_3 is a C1-C20 alkyl group.

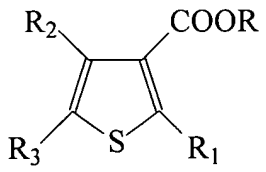
5. (currently amended) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R_1 is a COOR group.

6. (currently amended) The catalyst ~~components~~component according to claim 5 in which one of R_2 and R_3 of formula (I) are different from hydrogen.

7. (original) The catalyst component of claim 1 comprising a titanium compound having at least a Ti-halogen bond and the thiophene derivatives of formula (I) supported on a Mg halide in active form.

8. (currently amended) A catalyst for the polymerization of olefins comprising the product of the reaction between:

~~1.~~- a solid catalyst component ~~according to any of the claims 1-7~~comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



(I)

wherein R is a branched alkyl group, R_1, R_2 and R_3, same or different, are hydrogen, halogen, R^4, OR^4, $COOR^4$, SR^4, NR^4_2 or PR^4_2, wherein R^4 is a linear or branched C_1-C_{20} alkyl, C_2-C_{20} alkenyl, C_3-C_{20} cycloalkyl, C_6-C_{20} aryl, C_7-C_{20} alkylaryl or C_7-C_{20} arylalkyl group, optionally containing at least one heteroatom, and at least two of said R_1-R_3 groups can also be joined to form a cycle, with the proviso that at least one of R_1 and R_2 is $COOR^4$ and that when R_2 is COO-i-octyl and R is i-octyl, at least one of R_1 and R_3 are different from hydrogen;

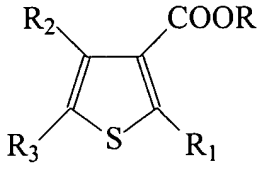
- an alkylaluminum compound; and[[,]] optionally,

- ~~one or more~~at least one electron-donor ~~compounds~~compound (external donor).

9. (currently amended) The catalyst according to claim 8 in which the alkylaluminum compound ~~(b)~~ is a trialkyl aluminum compound.

10. (currently amended) ~~Process for the (co)polymerization of~~A process comprising (co)polymerizing olefins, the (co)polymerization being carried out in the presence of ~~any of the catalysts of claims 8-9~~a catalyst comprising the product of the reaction between:

- a solid catalyst component comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



(I)

wherein R is a branched alkyl group, R_1, R_2 and R_3, same or different, are hydrogen, halogen, R^4, OR^4, $COOR^4$, SR^4, NR^4_2 or PR^4_2, wherein R^4 is a linear or branched C_1-C_{20} alkyl, C_2-C_{20} alkenyl, C_3-C_{20} cycloalkyl, C_6-C_{20} aryl, C_7-C_{20} alkylaryl or C_7-C_{20} arylalkyl group, optionally containing at least one heteroatom, and at least two of said R_1-R_3 groups can also be joined to form a cycle, with the proviso that at least one of R_1 and R_2 is $COOR^4$ and that when R_2 is COO-i-octyl and R is i-octyl, at least one of R_1 and R_3 are different from hydrogen;

- an alkylaluminum compound; and optionally,

- at least one electron-donor compound (external donor).